

CLAIMS

What is claimed is:

1. A slim optical disc drive in a portable computer, comprising:
a main body comprising an upper frame and a lower frame;
a tray installed in the main body to be loaded and/or unloaded and comprising a spindle motor to rotate an optical disc and an optical pickup to record information on and/or reproduce information from the optical disc; and
a front panel combined with a front side of the tray,
wherein a front end of the upper frame is supported by the front panel so that the upper frame is distorted downward by a load.
2. The slim optical disc drive of claim 1, wherein at least a portion of the front panel is support by the portable computer so that the load is conveyed to the portable computer.
3. The slim optical disc drive of claim 1, wherein the front panel comprises a support portion extending toward the front end of the upper frame, the support portion being located under the front end of the upper frame when the tray is loaded into the main body.
4. The slim optical disc drive of claim 1, further comprises:
at least one protrusion extending from the front end of the upper frame toward the front panel; and
an insertion portion formed on the front panel, wherein the at least one protrusion is inserted into the insertion portion.
5. The slim optical disc drive of claim 1, wherein the front end of the upper frame extends toward the front panel, and the front panel comprises an insertion portion into which the front end is inserted.
6. A portable computer, comprising:
a slim optical disc drive comprising:
a main body comprising an upper frame and a lower frame

a tray installed in the upper frame and the lower frame to be loaded and unloaded and into the main body and comprising a spindle motor to rotate an optical disc and an optical pickup to record and reproduce information in respect to the optical disc, and

a front panel to be combined with a front side of the tray, wherein a front end of the upper frame is supported by the front panel;

combiners to combine the front panel of the slim optical disc drive to the portable computer; and

a slot into which the optical disc drive is inserted, wherein when the tray is loaded into the main body, a portion of a lower surface of the front panel is supported by a mouth of the slot.

7. The slim optical disc drive of claim 6, wherein at least a portion of the front panel is supported by the portable computer so that a load is conveyed to the portable computer.

8. The portable computer of claim 6, wherein the upper frame comprises a protrusion which extends from the front end of the upper frame and combines the main body to the front panel.

9. The portable computer of claim 8, wherein the front panel comprises:
at least one first support portion which supports the front end of the upper frame and extends from a rear surface of the front panel to support the front end when the tray is loaded into the main body;

second support portions combined with the combiners to combine the front panel to the portable computer;

an insertion portion to insert the protrusion of the upper frame and combine the front panel with the tray; and

an extension extending from the rear surface of the front panel and comprising hooks at ends thereof to be inserted into holes of the front end of the tray, wherein the extension contacts with the front side of the tray.

10. The portable computer of claim 9, wherein the second support portions are a complementary shape with respect to the combiners.

11. The portable computer of claim 10, wherein the combiners are dented and the second support portions protrude from the rear surface of the front panel to be inserted into the combiners.

12. The portable computer of claim 10, wherein the second support portions are dented and the combiners protrude from the portable computer to be inserted into the second support portions.

13. The portable computer of claim 5, wherein the front end of the upper frame is supported by the front panel to prevent deformation of the upper frame caused by the load.

14. The portable computer of claim 6, wherein the front end of the upper frame is supported by the front panel to prevent deformation of the upper frame caused by a load.